UNITED STATES PATENT AND TRADEMARK OFFICE

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10/014,106	12/11/2001	Kyle G. Brown	RSW920010188US1	2639

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ART UNIT	PAPER NUMBER
2445	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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	Application No.	Applicant(s)
	10/014,106	BROWN ET AL.
Office Action Summary	Examiner	Art Unit	
	Jeffrey R. Swearingen	2445	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _15 January 2009 and 24 September 2009_.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-49_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-49_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.   **This is a supplemental action. Pursuant to the Order Returning Undocketed Appeal to Examiner mailed 1/15/2009, this supplemental action addresses claim 49. Otherwise this communication is a remailing of the final rejection issued on 7/24/2007. This rejection is non-final because claim 49 had not been previously addressed. Applicant's representative should contact the Examiner if there are any questions concerning this procedural action.**

2.   In view of the Order Returning Undocketed Appeal to Examiner filed on 1/15/2009 and the Appeal Brief filed 9/24/2009, PROSECUTION IS HEREBY REOPENED. New grounds of rejection for claim 49 are set forth below.

        To avoid abandonment of the application, appellant must exercise one of the following two options:

        (1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

        (2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

        A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

        /R. D. D./

Supervisory Patent Examiner, Art Unit 2400.

Response to Arguments

3.   Applicant's arguments filed 5/16/2007 have been fully considered but they are

not persuasive.

4.   Applicant stated on page 17 of the remarks that "the container itself is a Web

service." As previously explained to Applicant in prior office actions, a container cannot

be a Web service, since a Web service is a method of performing a function on the

Web. This statement is contrary to Applicant's own claims that state a container is a

Web services software module.

5.   Applicant argued Barnett failed to disclose a Web service. See Figure 5A and 5B

which explicitly show the presence of Web services. See further paragraph 0018 for

another example of services which meet Applicant's explicit definition of web services in

the claim – *executable software modules that can be exchanged between nodes of a*

network and run at said nodes. Applicant is responsible for the prior art in its entirety.

The citations are merely presented to assist Applicant in their response, but the

rejection is over the prior art in its entirety.

6.   Applicant argued no single piece of software in Barnett performs all functions in

claim 1 for a single container. Barnett teaches all functions claimed by Applicant. It is

unclear what Applicant's traversal is in reference to. Applicant failed to stated that

Barnett did not teach determining the Web services available locally, disclosing to other

nodes the Web services available at the local node, receiving and deciphering

messages form other nodes to discover what Web services are available at those other

network nodes, and dynamically reconfiguring Web services available at its node based on messages exchanged between the nodes; therefore Applicant has admitted these features are taught by Barnett.

7.   Applicant argued Barnett failed to disclose the transmission of contextual information about the services. The name of each service is inherently transmitted with the service in order to identify it between nodes; this is contextual information about the services. The services also keep track of "group identification" that the server is authorized for, as taught in paragraph 0034.

8.   The typographical error regarding the rejection for claims 7 and 31 has been amended below.

9.   Applicant argued Barnett failed to teach dynamic reconfiguration and the invocation of proxies. This is "If a new service is created and started while the user is working, and the user has permission to access that service, it will appear in the client applet." The dynamic appearance of the availability of a service is dynamic reconfiguration. Proxies are invoked allowing the service to appear in the client applet.

10.   The language of claims 14 and 38 do not state any use of proxying, contrary to Applicant's arguments.

11.   The language of claims 16 and 40 do discuss dynamic reconfiguration and the invocation of services, and these features are taught in Barnett. See paragraph 0039, and further paragraph 0037 which deals with the execution of the services. The exchange of services is taught in paragraph 0035. This is repeated with the arguments concerning claims 17, 41, 18, 19, 42, and 43.

12.   The references in the art are intended to aid Applicant in their response; however

the rejection is over the prior art in its entirety, not just using the specific paragraph

citations.

Claim Rejections - 35 USC § 102

13.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

14.   Claims 1-4, 7, 11-28, 31, and 35-49 are rejected under 35 U.S.C. 102(e) as being

anticipated by Barnett et al. (US 2002/0111814 A1).

15.   In regard to claims 1 and 25, Barnett disclosed:

determining and describing Web services software modules that are available at a

corresponding network node, said Web services software modules comprising

executable software modules that can be exchanged between nodes of a network

and run at said nodes; *paragraph [0038]*

    generating messages to be transmitted to other containers via a network

disclosing said Web services software modules that are available at said

corresponding network node; paragraph [0036]

receiving and deciphering messages disclosing Web services software

modules that are available at other network nodes corresponding to other

containers; paragraph [0038] *and*

causing the dynamic reconfiguration of said Web services software

modules available at said corresponding network node on said network based on

said transmitted and received messages, including the exchange of said Web

services software modules between said network nodes; paragraph [0035]

wherein said container is in the form of a Web services software module. *Paragraph*

[0037]

16.   *In regard to claims 2 and 26, Barnett disclosed:*

transmitting messages to other containers requesting said other containers to return

copies of Web services software modules; *paragraph [0049]* and

responsive to receipt of messages from said other containers requesting copies of

Web services software modules available at said corresponding network node, for

sending copies of said requested Web services software modules to said requesting

containers. *Paragraph [0049]*

17.   *In regard to claims 3 and 27, Barnett disclosed:*

generating messages that are hardware and software platform

independent. *Paragraph [0007]*

18.   *In regard to claims 4 and 28, Barnett disclosed:*

transmitting said messages to and from a Web services registry; and

receiving said messages from a Web services registry. *Paragraph [0038]*

19.   *In regard to claims 7 and 31, Barnett disclosed:*

transmitting messages executable instructions uses a peer to peer messaging

protocol between said containers and said computer readable code for receiving and

deciphering messages uses a peer to peer messaging protocol between containers.

The use of JAVA and CORBA in Barnett is a peer-to-peer messaging protocol.

Paragraph 0048, Paragraph 0028, Paragraph 0058.

20.   *In regard to claims 11 and 35, Barnett disclosed:*

receiving client requests for use of a Web services software module from client

computers via said network. *Paragraph [0035]*

21.   *In regard to claims 12 and 36, Barnett disclosed:*

responsive to receipt of one of said client requests from a client for a Web services

software module that is not available at said corresponding network node;

paragraph [0038]

determines, based on said received messages disclosing said Web

services software modules that are available at other network nodes,

whether another network node has a copy of said particular Web services

software module; *paragraph [0035]* and

invokes a proxy to another of said containers having a copy of a particular

Web services software module based on said determination. *Paragraph*

[0035]

22.   *In regard to claims 13 and 37, Barnett disclosed:*

routing said client requests for a Web services software module that is not available

at said corresponding network node and has been determined to be available at

another network node to another container corresponding to said another network

node; *paragraph [0035]*

receiving responses to said client requests from said another network node;

paragraph [0035] and

returning said responses to said requesting clients. *Paragraph [0035]*

23.   *In regard to claims 14 and 38, Barnett disclosed:*

receiving said client requests routed from another of said containers and causing

said client requests to be handled by a copy of said particular Web services software

module at a network node corresponding to said container to generate said

response; *paragraph [0049]* and

transmitting said response to said another container that routed said client request to

said container. *Paragraph [0049]*

24.   *In regard to claims 15 and 39, Barnett disclosed:*

determining a load of client requests at said corresponding network node; *paragraph*

[0038] and

the dynamic reconfiguration of Web services software modules performs said

dynamic reconfiguration based on said load determination. *Paragraph [0038]*

25.   *In regard to claims 16 and 40, Barnett disclosed:*

responsive to determination of a load of client requests for a particular Web services

software module that is not available at said corresponding network node exceeding

a predetermined level, issues a message requesting a copy of said particular Web

services software module from another container that has a copy of said particular

Web services software module; *paragraph [0039]*

receiving and locally invoking said particular Web services software module from

said other container; *paragraph [0039 and 0037]* and

routing client requests for said particular Web services software module to said local

invocation of said particular Web services software modules. *Paragraph [0039 and*

0035]

26.   *In regard to claims 17 and 41, Barnett disclosed:*

offloading said particular Web services software module received from said other

container responsive to said load of client requests for said particular Web services

software module dropping below a second predetermined level. *Paragraph [0039]*

27.   *In regard to claims 18 and 42, Barnett disclosed:*

responsive to determination of a load of client requests for a particular Web services

software module available at said corresponding network node exceeding a

predetermined level, issues a message requesting another container to accept a

copy of the code of said particular Web software modules; *paragraph [0039]* and

sending a copy of said code of said particular Web services software module to said

other container responsive to affirmative responses to said message requesting

another container to accept a copy of the code of said particular Web services

software module. *Paragraph [0039]*

28.   *In regard to claims 19 and 43, Barnett disclosed:*

reconfiguring said computer program product to route client requests for said

particular Web services software module to said other container. *Paragraph [0037]*

29.   *In regard to claims 20 and 44, Barnett disclosed:*

>   said other container comprises a plurality of other containers. *Paragraph*
>
>   *[0038]*

30.   *In regard to claims 21 and 45, Barnett disclosed:*

reconfiguring said computer program product to route client requests for said

particular Web services software module to said other container distributes said

client requests for said particular Web services software module between said other

containers and said local invocation of said particular Web services software

module. *Paragraphs [0037]-[0040]*

31.   *In regard to claims 22 and 46, Barnett disclosed:*

wherein said client requests indicate whether said requesting client has a container

and a platform on which said client is running and wherein said computer program

product further comprises computer executable instructions to read said client

requests to determine whether said client has a container and said platform.

Paragraph [0037]

32.   *In regard to claims 23 and 47, Barnett disclosed:*

sending a copy of the code of a particular Web services software module responsive

to a client request for said Web services software module. *Paragraph [0049]*

33.   *In regard to claims 24 and 48, Barnett disclosed:*

monitoring usage of Web services software modules by clients; and

charging said clients for said usage. *Paragraph [0046]*

34.   **In regard to claim 49, Barnett disclosed:**

Said contextual information includes at least one of an identity of a

Web service, the capabilities of said Web service, the operating

system of said Web service, the platform of said Web service, the

Web services hosted by a container type Web service, the workload

of said Web service, and a network location of said Web service. **The**

registry includes information including a unique path URL to the

Result. The unique path URL is the network location of said Web

service. Paragraph [0038]

Claim Rejections - 35 USC § 103

35.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set
forth in section 102 of this title, if the differences between the subject matter sought to be patented and

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

36.   This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

37.   Claims 5-6, 8-9, 29-30 and 32-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barnett in view of Sycara ("Multi-Agent Infrastructure, Agent Discovery, Middle Agents for Web Services and Interoperation," Multi-Agent Systems and Applications: 9th ECCAI Advanced course ACAI 2001 and Agent Link's 3rd European Agent Systems Summer School, EASSS 2001, Prague, Czech Republic, July 2-13, 2001, Selected Tutorial Pages. pp. 17-49. Springer Berlin.)

38.   In regard to claims 5-6, 8-9, 29-30, and 32-33, Barnett disclosed a dynamic web services exchange infrastructure. Barnett failed to disclose the use of UDDI, SOAP, or WSDL as protocols for use with Web Services. Barnett disclosed that other software could be used other than Jini in paragraph [0048]. Sycara disclosed that UDDI, SOAP and WSDL were receiving "increased visibility" in the field of Web services as protocols. See Sycara, page 18. Because Barnett disclosed other protocols could be used in the design of Barnett, and Sycara disclosed other protocols that were being used in

distribution of Web services, it would have been obvious to one of ordinary skill in the

art at the time of the invention to use UDDI, SOAP, and WSDL with Barnett's invention.

39.   Claims 10 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Barnett in view of Project JXTA (Collab.Net, Inc., May 15, 2001,

http://web.archive.org/web/20010515211442/http://www.jxta.org).

40.   In regard to claims 10 and 34, Barnett disclosed a dynamic web services

exchange system using Jini, which is a cross-platform protocol. Barnett disclosed other

protocols than Jini could be used in paragraph [0048]. Barnett failed to disclose the use

of JXTA as a protocol for transmitting messages between platforms. However, Project

JXTA showed that on April 25, 2001, Project JXTA went live as an open sources effort

to create an open, generalized protocol that interoperates with any peer on the network

including PCs, servers, and other connected devices. Because Barnett described the

use of a cross-platform protocol, Barnett gave suggestion that other protocols could be

used, and because Project JXTA was expressly designed as a cross-platform protocol

for transmitting messages between peers as described in "What is Project JXTA?", and

because Project JXTA is open source, therefore allowing more developers to make use

of the protocol, it would have been obvious to one of the ordinary skill in the art at the

time of the invention to use the JXTA protocol with the Barnett invention.

Conclusion

41.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

Rogers et al.	US 6,604,135 B1
Merrick et al.	US 7,028,312 B1
Teodosiu et al.	US 7,072,982 B2
Martinez et al.	US 2003/0097464 A1

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Jeffrey R. Swearingen whose telephone number is

(571)272-3921. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Vivek Srivastava can be reached on 571-272-7304. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Rupal D. Dharia/   Jeffrey R. Swearingen

Supervisory Patent Examiner, Art Unit 2400   Examiner
                                                     Art Unit 2445

/Jeffrey R. Swearingen/
Examiner, Art Unit 2445